

ON SOME HUMAN SKULLS IN THE COLLECTION
OF THE ALBANY MUSEUM.

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During the last few weeks the collection of human skulls in the Albany Museum has been enriched by some valuable specimens, the most noteworthy of which are the skull of a Bushman from Kuruman, presented by Dr. J. B. Greathead, Graham's Town, and a skull found in a kitchen midden near the mouth of the Zwartkops River, by Mr. J. M. Leslie, F.Z.S., of Port Elizabeth, and presented by its discoverer. The latter skull, which, in the following notes, will be distinguished as the 'Zwartkops skull,' was found during the summer of 1891, in the sand-hills south of the Zwartkops River mouth, some 12 feet above high-water mark on the coast of Algoa Bay. The other bones belonging to the same skeleton (which had been exposed by shifting sand-hills) were found with the skull, but only the latter was preserved. In addition to this information, Mr. Leslie writes: 'The principal food-remains were shells, bones of fishes and birds; also a few herbivorous mammalian bones, probably the small gazelle's.'

The same kitchen midden yielded broken pieces of pottery and stone implements. Some of these pieces of pottery and a rude stone implement (probably an unfinished spear-head) were presented with the skull. The former appear to me to belong to the same type as the pots ascribed to 'Strandloopers' in the South African Museum. Mr. Leslie pronounced the Zwartkops skull to have belonged to one of these Strandloopers; and certainly it is only reasonable to conclude that it belonged to a race which built up the kitchen midden in which it was found; and its importance will be at once recognised when we consider that the stone implements found in the kitchen middens along the coast of the Eastern province have been frequently ascribed to Bushmen. I may state at once that the Zwartkops skull is, in my opinion, not Bushman; it may, however, belong to a race forming another side-branch of the Koi-Koin.* But I have no wish to be dogmatic in this, or any of the conclusions expressed in the following notes. My chief intention

* See Fritsch, 'Die Eingebornen Süd-Afrika's,' Breslau, 1872, p. 261.

is to draw attention to the skull found by Mr. Leslie, and I hope that, at some future time, somebody better qualified for the task than I am, will subject this and other skulls of similar origin to a thorough critical examination.

The Zwartkops skull is in an excellent state of preservation. It is, however, impossible to even guess how long it may have been buried. It probably belonged to a young, though nearly full-grown, female, and, by comparison with the Kafir skull, is microcephalic. I have not determined its cranial capacity. A few of the other principal measurements were, however, taken of three other skulls in order to compare them roughly, and also to contrast them with some published measurements of South African skulls.

Name of Skull.	Circumference.	Length.	Breadth.	B. T.*	Height.	H. T.	B. N.	B. A.	Gnathic Index.
Zwartkops skull -	485	170	120	70·6	118	69·4	86	80	93
Kuruman Bushman skull -	497	174	127	73	129	74·2	96	94	98
Average of 6 Bushman skulls measured by Prof. Rolleston† -	486	171	131	75	125	72	93	92	98
Average of 6 Bushman skulls measured by Sir W. H. Flower‡ -	494	175	134	76·7	125	71·7	93	89	97·8
Average of 7 Bushman skulls measured by Prof. Fritsch§ -	502	180	133	73·9	126·9	70·6			
Average of 7 Hottentot skulls measured by Prof. Fritsch§ -	497	182	132	73	129	70·9			
Kafir skull (Perie bush) -	543	189	129	70	138	73	102	102	100

* For explanation of this and following abbreviations, see Quain's 'Anatomy,' vol. ii., part i., p. 83, etc.

† See Frank Oates, 'Matabeleland and the Victoria Falls,' London, 1881, p. 293.

‡ As quoted by Professor Rolleston on p. 292 of Mr. Oates' posthumous work on Matabeleland.

§ *Loc. cit.*, table opposite p. 528. Further recent information on Bushman skulls will be found in the 'Report on the Human Crania collected by the *Challenger Expedition*,' by Sir William Turner, contained in vol. x. of the 'Report of the *Challenger Expedition*.'

The measurements given in the above table seem to show that the Kuruman skull is a genuine Bushman skull, although its height-index differs somewhat from the average; but several of the skulls described by Professor Rolleston have even a larger height-index. Its general form agrees on the whole with the published figures and descriptions of Bushman skulls. There is nothing either in the breadth-index or height-index of the Zwartkops skull that would prevent us from considering it also to be Bushman; but the gnathic index is very different from the average, although we must mention that the same has been found in a Bushman skull, described by Professor Rolleston.

The most striking peculiarity of the Zwartkops skull is the prominent parietal eminences (which are 13.3 cm. apart); add to this a steep forehead and a flatish top, and we have that peculiar angular appearance of the skull which is so characteristic of Hottentot skulls. Fritsch (*loc. cit.*, p. 294) says:

‘By simply looking at the front and side views, one would scarcely be in a position to recognise the characteristic type of the Hottentot skull unless one also has recourse to the *norma verticalis*. This latter is the most peculiar feature, and distinguishes the Hottentot skull from all others I have ever set eyes upon. A glance at Plate XXXIII.’ (of Fritsch’s work) ‘will explain the peculiar dolicho-cephalic character of the Hottentot skull, which reminds one of the pathological type of the *Trigonocephalus*. One may say that its form is elongated, its greatest breadth far back in the vicinity of the *tubera parietalia*; its sides are almost straight, and form with the flat forehead a perceptible angle. In this view one also recognises the pointed malar tuberosity, and the straight course of the zygomatic arches. Only the lower portion of the nasal region is seen, but more so the upper jaw, with the moderately oblique series of teeth. Behind the *tubera parietalia* the head is rounded off pretty regularly, its outline being in the form of a segment of a circle, the chord of which is not much smaller than the diameter of the circle. The view from behind varies; but here also the angular structure of the skull shows itself. The outline is always indistinctly pentagonal, different corners being more or less rounded off in different skulls.’

Looking at the Zwartkops skull in the light of these remarks by the greatest authority on the anatomy of South African aborigines, and taking into account some further remarks by the same author (Fritsch, *loc. cit.*, p. 413), in which he contrasts the peculiarities of Bushman and Hottentot skulls, I should have no hesitation in pronouncing the Zwartkops skull to be Hottentot; but, as stated before, I hope that this valuable specimen will, with the other skulls of similar origin, form the subject of a more extended study by a competent authority.